SHEVCHENKO, V. I.; ALPATOV, Ye. N.

New devices for the electrolytic preparation of metallographic
sections. Zav.lab. 28 no.7: 883-885 '62.   (MIRA 15:6)

1. Ukrainskiy nauchno-issledovatel'skiy trubnyy institut.
                    (Metallography)

SHEVCHENKO, V.I.; ALPATOV, Ye.N.

Method of studying the three-dimensional microstructure of alloys.
Zav. lab. 29 no.9:1095-1098 '63.   (MIRA 17:1)

1. Ukrainskiy nauchno-issledovatel'skiy trubnyy institut.

ACC NR: AP6031384

SOURCE CODE: UR/0079/66/036/009/1642/1644

AUTHOR: Shevchenko, V. I.; Kornuta, P. P.

ORG: Institute of Organic Chemistry, Academy of Sciences, UkrSSR (Institut organicheskoy khimii Akademii nauk UkrSSR)

TITLE: Phosphorylation of cyanoacetic acid

SOURCE: Zhurnal obshchey khimii, v. 36, no. 9, 1966, 1642-1644

TOPIC TAGS: cyanoacetic acid, phosphorylation, phosphorus pentachloride, CYANOGEN COMPOUND

ABSTRACT: The reaction of cyanoacetic acid with PCl_5 (molar ratio 1:2) in benzene at 20—25°C yielded I, bp 102—105°C, n_D^{20} 1.5896:
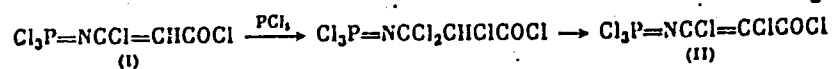
$$NCCH_2COOH + 2PCl_5 \longrightarrow 2HCl + POCl_3 + Cl_3P{=}NCCl{=}CHCOCl$$
$$(I)$$
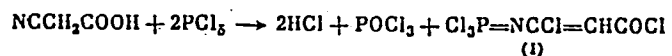
At temperatures above 80—85°C, I reacts with PCl_5 to form II, bp 92—93°C, n_D^{20} 1.5711:

Card 1/3

UDC: 547.239.2

ACC NR: AP6031384

$$Cl_3P=NCCl=CHCOCl \xrightarrow{PCl_5} Cl_3P=NCCl_2CHClCOCl \rightarrow Cl_3P=NCCl=CClCOCl$$
$$(I) \hspace{5cm} (II)$$

Compound III (bp 88—91°C, n_D^{20} 1.5611) may be obtained by the
reaction of I or II with elemental Cl or with PCl$_5$ or by boiling
for 14—15 hr a mixture consisting of 0.1 mole cyanoacetic
acetic and 0.45 mole PCl$_5$. Thus the course of phosphorylation
of cyanoacetic acid depends on the conditions:

$$NCCH_2COOH \xrightarrow{PCl_5} NCCH_2COCl \xrightarrow{PCl_5} Cl_3P=NCCl=CHCOCl \xrightarrow{PCl_5}$$
$$(I)$$
$$\rightarrow Cl_3P=NCCl_2CHClCOCl \xrightarrow{-HCl} Cl_3P=NCCl=CClCOCl \xrightarrow{PCl_5}$$
$$(II)$$
$$\rightarrow Cl_3P=NCCl_2CCl_2COCl$$
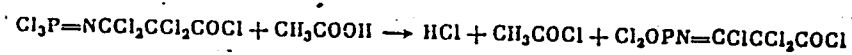$$(III)$$
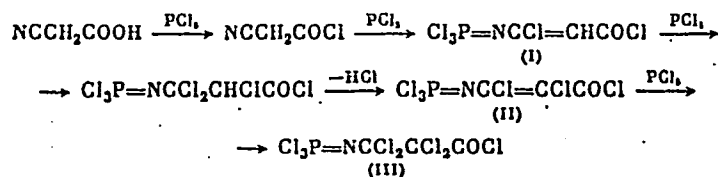
Card 2/3

ACC NR: AP6031384

III in benzene solution reacts with glacial acetic acid to form
IV, bp 78—80°C, n_D^{20} 1.5339, d_4^{20} 1.7555:   [WA-50; CBE No. 12]

$$Cl_3P{=}NCCl_2CCl_2COCl + CH_3COOH \rightarrow HCl + CH_3COCl + Cl_2OPN{=}CClCCl_2COCl$$

SUB CODE: 07/ SUBM DATE: 02Jul65/ ORIG REF: 005/

Card 3/3

55104

S/185/62/007/001/014/014
D299/D302

24.6716

AUTHORS: Shapiro, V.D., and Shevchenko, V.I.

TITLE: Effect of electrostatic instabilities on the distribution function of an electron beam which interacts with a plasma in a magnetic field

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 1, 1962, 83 – 86

TEXT: Formulas are derived for the temperature variations and rectified velocity of an "almost mono-energetic" electron beam, interacting with a plasma in a magnetic field. These formulas are obtained by solving the equation for the distribution function f_0. This equation is obtained from the kinetic equation, by omitting the integral of pair collisions:

$$\frac{\partial f_0}{\partial t} - \frac{e}{mc} [\vec{v}\vec{H}_0] \frac{\partial f_0}{\partial \vec{v}} - \frac{e}{m} < \vec{E}_1 \frac{\partial f_1}{\partial \vec{v}} > - \frac{e}{mc} < [\vec{v}\vec{H}_1] \frac{\partial f_1}{\partial \vec{v}} > = 0 \tag{1}$$

This integral is omitted, as fairly "fast" processes are considered. The case is considered of longitudinal axially-symmetric plasma os-

Card 1/3

Effect of electrostatic instabilities... D299/D302

cillations, in a plane perpendicular to the magnetic field. It is assumed that the plasma oscillations are linear and that f_0 changes slowly with time, compared to the plasma oscillations. After transformations, one obtains from Eq. (1) the expression:

$$\frac{\delta f_0}{\delta t} = \frac{\delta}{\delta v_i} \left(\alpha_{ik} \frac{\delta f_0}{\delta v_k} \right), \tag{4}$$

where α_{ik} is the tensor of the diffusion coefficients in velocity space, in the presence of the magnetic field. A formula is given for the tensor α_{ik} for the case of instabilities due to the Vavilov-Cherenkov effect, and to the anomalous Doppler effect. By solving Eq. (4), one obtains formulas for the longitudinal- and transverse temperatures and for the rectified velocity of the beam. These formulas yield, in the case of a sufficiently rarefied plasma:

$$\frac{(\Delta T)_\perp}{T_0} = \frac{\sqrt{2}}{12\pi} \frac{\omega_H^3}{N_i u^3} e^{5 D^2};\tag{7}$$

$$\frac{(\Delta T)_i}{T_0} \sim \frac{u^2}{\omega_H^2} \frac{N_i}{N_0} \frac{(\Delta T)_\perp}{T_0} \ll \frac{(\Delta T)_\perp}{T_0}; \quad |m u \Delta u| \approx (\Delta T)_\perp$$

Card 2/3

for instabilities due to the anomalous Doppler effect, and

$$\frac{(\Delta T)_i}{T_a} = 5 \cdot 10^{-3} \frac{\Omega^3}{N_1 u^3} \frac{e^{\lambda_c^2}}{\tau^{3_4}} : \frac{(\Delta T_\perp)}{T_a} \sim \frac{\Omega^2}{\omega_H^2}\left(\frac{N_1}{N_0}\right)^{1_2}\frac{1}{\tau}\frac{(\Delta T)_i}{T_a} < \frac{(\Delta T)_i}{T_a} : \qquad (7')$$

$$|m\dot{u}u| \simeq \frac{1}{2^{3_4}}\left(\frac{N_0}{N_1}\right)^{1_3}(\Delta T) : \cdot (\Delta T) :$$

for instabilities due to the Vavilov-Cherenkov effect; in formulas (7) and (7'), N_0 denotes plasma density, N_1 – beam density, $\tau = \omega \cdot t$, and β_D and β_C are given by expressions involving N, ω and Ω;

$$\Omega = \sqrt{\frac{4\pi N_0 e^2}{m}}$$

). There are 6 Soviet-bloc references.

ASSOCIATION: Fizyko-tekhnichnyy instytut AN URSR (Physicotechnical Institute of the AS UkrRSR), Kharkiv

SUBMITTED: September 2, 1961

Card 3/3

38860

S/056/62/042/006/017/047
B104/B102

$\mathcal{Z}4.67/6$

AUTHORS: Shapiro, V. D., Shevchenko, V. I.

TITLE: - The nonlinear theory of the interaction of beams of charged
                particles with a plasma in a magnetic field

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
                no. 6, 1962, 1515-1528

TEXT: The changes of temperature and the directed velocity of a beam of
charged particles on interaction with an electron plasma in an external
magnetic field is investigated in the "quasilinear" approximation. The
investigation is limited to the initial stage of the process, where the
oscillation amplitudes are small and the time variation of the beam
parameter causes no significant change of the dispersion coefficients.
During this time the amplitude increases linearly as in the linear theory.
An equation is derived which describes the change of the initial
nonequilibrium distribution function of the beam and of the plasma as being
due to interaction with the plasma oscillations. The changes in the mean
values of the velocity and the temperature caused by the Cherenkov effect,
Card 1/2

The nonlinear theory of the ...

S/056/62/042/006/017/047
B104/B102

and by the normal and anomalous Doppler effects are determined.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk Ukrainskoy SSR
(Physicotechnical Institute of the Academy of Sciences
Ukrainskaya SSR)

SUBMITTED: September 20, 1961 (initially)
March 14, 1962 (after revision)

Card 2/2

SHAPIRO, V.D.; SHEVCHENKO, V.I.

Quasi-linear theory of the instability of a plasma with anisotropic ion velocity distribution. Zhur. eksp. i teor. fiz. 45 no.5:1612-1624 N '63.

(MIRA 17:1)

SHEVCHENKO, V.I.

Integral representation of a vector holomorphic in a sphere.
Dokl. AN SSSR 153 no.6:1276-1279 D '63.   (MIRA 17:1)

1. Novosibirskiy gosudarstvennyy universitet. Predstavleno
akademikom I.N. Vekua.

MURAV'YEV, V.V.; SHEVCHENKO, V.I.

Two-stage braking of electrons in O-type traveling-wave tubes and backward-wave tubes. Izv. vys. ucheb. zav.; radiotekh. 7 no.4:517-523 Jl-Ag '64.

(MIRA 17:11)

SHEVCHENKO, V.I.

Boundary value problem for a vector holomorphic in a half-space. Dokl. AN SSSR 154 no.2:276-278 Ja'64.   (MIRA 17:2)

1. Novosibirskiy gosudarstvennyy universitet. Predstavleno akademikom I.N. Vekua.

SHEVCHENKO, V.I.

Construction of local and global homeomorphisms for a certain
class of equations. Dokl. AN SSSR 153 no.2:300-302 N '63.
(MIRA 16:12)

1. Novosibirskiy gosudarstvennyy universitet. Predstavleno
akademikom I.N.Vekua.

KARPOV, P.A.; SHEVCHENKO, V.I.; TEBYAKIN, V.V.; NECHAYEVA, M.A.;
    NAZARENKO, A.M.

Unconformity in the Upper Frasnian substage in the western
part of Volgograd Province. Geol. nefti i gaza 7 no.12:41-44
D '63.   (MIRA 17:8)

SHEVCHFNKO, V.I.

Golder continuity of solutions to singular integral equations of
the normal type. Dokl. AN SSSR 163 no.2:306-308 Jl '65. (MIRA 18:7)

1. Novosibirskiy gosudarstvennyy universitet. Submitted January 8,
1965.

SHEVCHENKO, V.I.

Riemann-Hilbert problem for a holomorphic vector. Dokl. AN SSSR 163
no.5:1035-1087 Ag '65.   (MIRA 18:8)

1. Novosibirskiy gosudarstvennyy universitet. Submitted February
2, 1965.

L 28492-66   EPF(n)-2/EWT(1)/ETC(f)/EWG(m)   IJP(c)   AT

SOURCE CODE: UR/0057/66/036/004/0627/0639

ACC NR: .AP6013117

55
53
B

AUTHOR: Shevchenko, V.I.

ORG: none

TITLE: On the nonlinear theory of the instabilities of a plasma in a strong electric field

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 4, 1966, 627-639

TOPIC TAGS: plasma stability, plasma oscillation, relativistic plasma, plasma magnetic field, plasma electric field, betatron, nonlinear effect,

ABSTRACT: The author discusses those unstable electrostatic and electromagnetic oscillations of an approximately uniform plasma in a strong electric field that cannot be stabilized by application of a strong magnetic field. The calculations were undertaken because of the importance of these instabilities for the operation of a plasma betatron. The paper is divided into two sections of approximately equal length. In the first section the linear theory of the oscillations is given. Thermal motions are neglected and the electrons are assumed to move with respect to the ions with the velocity $u = \beta c$ in the direction of an external magnetic field, which is of sufficient strength that $f^2 \ll F^2(1 - \beta^2)$, where f and F are the electron Langmuir and Larmor frequencies, respectively. The dispersion equation is written and its solutions are discussed for resonance conditions when ku is approximately equal to $f \cdot (1 - \beta^2)^{1/2}$.

UDC: 533.9

Card 1/2

$\cos\theta$ or to $F(1 - \beta^2)^{1/2}$, where k is the component of the wave vector in the direction of the electron motion and θ is the angle between the wave vector and the direction of the magnetic field. Stability conditions are derived, as well as expressions for the logarithmic increment of the unstable oscillations. In the second section the author discusses nonlinear effects quadratic in the amplitudes, employing the velocity moment technique used earlier by the author and V.D.Shapiro (ZhETF, 42, 1515, 1962; 44, 613,1963). The retarding forces on the moving electrons due to the different oscillations are calculated. The principal retarding force is associated with excitation of almost longitudinal oscillations, except at ultrarelativistic velocities or in very strong magnetic fields when transverse oscillations predominate. In the case of a plasma of density 10^{10} cm^{-3} and temperature 10^5 $^\circ$K in 3 kOe magnetic and 300 V/cm electric fields, the retarding force is due to excitation of almost longitudinal oscillations, but the retarding force becomes equal to the accelerating force only when the electron velocity is such that its total energy is five times its rest energy. The author thanks V.D.Shapiro for suggesting the topic and for assistance, and Ya.B. Faynberg for valuable remarks and discussions. Orig. art. has: 53 formulas.

SUB CODE: 20   SUBM DATE: 05Jun65   ORIG. REF: 012   OTH REF: 005

Card   2/2   CC

L 25788-66   EWT(d)   IJP(c)

ACC NR: AP6015919   SOURCE CODE: UR/0020/65/163/002/0306/0308

AUTHOR: Shevchenko, V. I.

ORG: Novosibirsk State University (Novosibirskiy gosudarstvennyy universitet) B

TITLE: Holder continuity of solutions of singular integral equations of the normal type

SOURCE: AN SSSR. Doklady, v. 163, no. 2, 1965, 306-308

TOPIC TAGS: Banach space, integral equation, linear operator, integral operator

ABSTRACT: This paper generalizes a hypothesis stated by I. N. Vekua:
Let X and Y be Banach spaces, where Y is a subspace of X, and let a linear
operator H, acting in these spaces, change X to X and Y to Y. Consider the
equation $H\mu = f$, where $f \in Y$. Assume that this equation is solvable for
any $f \in X$. If this equation has a solution μ in space X, then $\mu \in Y$.
When operator H has an inverse operator possessing identical properties,
the theorem is proved by inspection.

This paper confirms this proof for the case in which H is a singular integral
operator acting in space $X \equiv L_p (E_n)$, $p > 1$. $Y \equiv L_p$ $C_\alpha (E_n)$, $0 < \alpha > 1$. $C_\alpha (E_n)$
denotes a class of functions bounded in the entire Euclidean space E and
uniformly satisfying the Hölder condition, with subscript α $(0 < \alpha \leq 1)$,
for any finite points x and $y \in E_n$. This paper was presented by Academician

Card 1/2

L 25788-66

ACC NR: AP6015919

I. N. Vekua on 8 January 1965. The author thanks Academician I. N. Vekua for his undivided attention toward this work. Orig. art. has: 7 formulas. [JPRS]

SUB CODE: 12 / SUBM DATE: 29Dec64 / ORIG REF: 006 / OTH REF: 002

Card 2/2

ACC NR: AP7005419   SOURCE CODE: UR/0020/66/169/006/1285/1288

AUTHOR: Shevchenko, V. I.
ORG: Donetsk Computing Center, Academy of Sciences Ukrainian SSR (Donetskiy
vychislitel'nyy tsentr AN UkrSSR)
TITLE: Hilbert's problem for a holomorphic vector

SOURCE: AN SSSR. Doklady, v. 169, no. 6, 1966, 1285-1288
TOPIC TAGS: vector, Hilbert space, Riemann space

ABSTRACT: The article concerns the linear conjugacy problem (Hilbert's problem)
for a holomorphic vector, known for short as the H problem. It is shown that,
given a certain condition upon the conjugacy matrix G, the H problem is a
Fredholm problem. The conjugate H' problem is introduced for consideration and
a necessary and sufficient condition obtained for the solvability of the H prob-
lem. The author uses singular integral equations to investigate the H problem,
proceeding according to the ideas of I. N. VEKUA. The manner of introducing
the conjugate H' problem is similar to the method employed by B. V. BOYARSKIY
in the planar case. A relationship is established between Hilbert's problem
and the Riemann-Hilbert problem (the Γ problem). This paper was presented by
I. N. Vekua, Academician.   The author thanks Academician I. N. Vekua for
his interest. Orig. art. has: 17 formulas. /JPRS: 38,695/

SUB CODE: 12 / SUBM DATE: 23Sep63 / ORIG REF: 008

UDC: 517.946.9

Card 1/1

ACC NR: AP7004745   (A)   SOURCE CODE: UR/0413/67/000/001/0037/0037

INVENTOR: Shevchenko, V. I.

ORG: none

TITLE: Method of centralized programmed control. Class 21, No. 189915

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1967, 37

TOPIC TAGS: centralized control, programmed control, AUTOMATIC CONTROL DESIGN, SIGNAL MODULATION

ABSTRACT: An Author Certificate has been issued for a method for obtaining cen-
tralized control, with one program of a group of non-synchronously operating
machines. The method consists in the following: the signal of a program reproduced
in an accelerated time scale is modulated by reference pulses which characterize the
number of the program stage to which the given value of the master actuating signal
refers. This signal is compared with the feedback signal which characterises the

Card   1/2   UDC: 62-503.55

ACC NR: AP7004745

Fig. 1.   Method of centralized programmed control
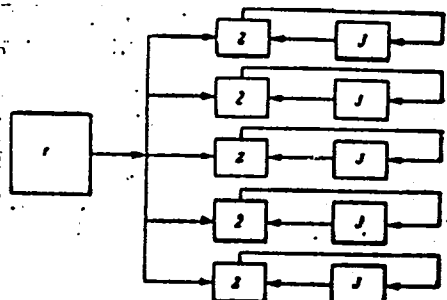
1 - Programming system; 2 - comparators;
3 - objects.

number of the current stage of the program being processed. When the quality of the master and the feedback pulses coincide, these pulses are transmitted as the master actuating signal and are stored until the following moment of coincidence. Orig. art. has: 1 figure.

[JP]

SUB CODE: 09/ SUBM DATE: 05Nov63/

Card 2/2

ACC NR: AP7006136   SOURCE CODE: UR/0056/67/052/001/0144/0153

AUTHOR: Shapiro, V. D.; Shevchenko, V. I.

ORG: Physicotechnical Institute, Academy of Sciences, Ukrainian SSR (Fiziko-tekhnicheskiy institut Akademii nauk Ukrainskoy SSR)

TITLE: Contribution to the nonlinear theory of stability of an electron beam in a system with electrodes

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 52, no. 1, 1967, 144-153

TOPIC TAGS: plasma instability, nonlinear theory, plasma beam interaction, electron beam, electron beam stability, plasma oscillation

ABSTRACT: The article deals with the nonlinear theory of the instability first considered by J. R. Pierce (J. Appl. Phys. v. 15, 721, 1944), produced when a monoenergetic electron beam passes between electrodes kept at constant potential. Small supercriticality is assumed. The method used in the analysis is the same as used by one of the authors (Shapiro, Izv. Vuzov Radiofizika v. 7, 736, 1964) for a beam with periodically varying parameters. The plasma oscillations are described by means of the hydrodynamic equations, which are solved subject to the same boundary conditions as imposed by Pierce. The solution of these equations yields the complex amplitude of the instability oscillations and a critical velocity is introduced to differentiate between oscillations that can be stabilized and those that can not. It is concluded that the system possesses "hard" excitation, so that when it goes through the stabili-

Card 1/2

ACC NR: AP6036370   (N)   SOURCE CODE: UR/0109/66/011/011/1986/1993

AUTHOR: Taranenko, V. P.; Shevchenko, V. I.

ORG: none

TITLE: Selecting the optimal diameter of the drift channel in high-power broadband TW tubes

SOURCE: Radiotekhnika i elektronika, v. 11, no. 11, 1966, 1986-1993

TOPIC TAGS: TW tube, delay structure, electron tube

ABSTRACT: Based on theoretical data and results of "cold" measurements, the optimal size of drift aperture in a positive-mutual-inductance-type delay structure (see figure) is determined. The aperture diameter ensures an optimal relation between the nondimensional parameters: gain C and space charge QC. Experimental dispersion characteristics and plots of
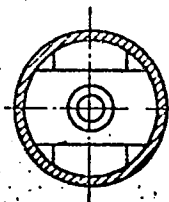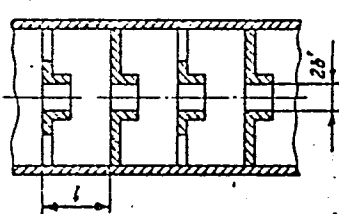
Card 1/2

ACC NR: AP6036370

coupling resistance vs. phase shift per period, for drift-aperture radii of 1.5, 2, 2.5, 3, and 3.5 mm are shown. Curves of estimated TW-tube efficiency vs. translated aperture radius, for 0.3—0.6 microperveance values, are presented. A final set of curves for the optimal aperture radius permits selecting the drift channel on the basis of specified values of the fill factor, electron-beam microperveance, and experimental coupling resistance. Orig. art. has: 5 figures, 6 formulas, and 1 table.

SUB CODE: 09 / SUBM DATE: 05Jul65 / ORIG REF: 003 / OTH REF: 003

Card 2/2

SHEVCHENKO, V.K.

Old denudation planation surfaces in the northern part of
the Sikhote-Alin' Range. Vest.Mosk.un.Ser.5: Geog. 20
no.4:64-66   Jl-Ag '65.

(MIRA 18:12)

SHEVCHENKO, V.K. (Moskva)

Traces of a meteorite fall. Priroda 53 no.4:98 '64.   (MIRA 17:4)

SHEVCHENKO, V.L.

Birds in the irrigated fields of the Kamenka-Dneprovskaya Experiment
Station. Uch.zap. KHGU 52:131-135 '54.   (MIRA 11:11)

1. Kafedra zoologii pozvonochnykh Khar'kovskogo gosudarstvennogo
universiteta (zav. - prof. I.B. Volchanetskiy).
 (Kamenka-Dneprovskaya District--Birds)   (Irrigation)

SHEVCHENKO, V.L.

Main ecological characteristics of the Lagurus lagurus Pall. in
West Kazakhstan. Zool. zhur. 41 no.4:616-625 Ap '62.
(MIRA 15:4)
(Kazakhstan—Rodentia)

SHEVCHENKO, V.L.

Reproduction and change in the aboundace of the steppe vole
Lagurus lagurus Pall, in the Ural Mountain region. Zool. zhur.
42 no.1:114-125 '63.   (MIRA 16:5)

(Ural Mountain region--Field mice)

SHEVCHENKO,V.M., redaktor; VELIZHEV,A.B., redaktor; SOLOV'YEV,S.N., tekhnicheskiy redaktor

[Periodical press of the U.S.S.R. from 1917 to 1949; a bibliography. Journals, proceedings and bulletins on tehnology and industry] Periodicheskaia pechat' SSSR 1917-1949; bibliogra-ficheskii ukazatel'. Zhurnaly, trudy i biulleteni po tekhnike i promyshlennosti. Moskva, 1955. 315 p.   (MIRA 9:3)

1. Vsesoyuznaya knizhnaya palata.
    (Bibliography--Technology) (Bibliography--Industry)

BUZANOV, I.F., red.; VARSHAVSKIY, B.Ya., red.; ORLOVSKIY, N.I., red.;
PODTYKAN, Ya.P., red.; SHEVCHENKO, V.N., red.; POZHAR, Z.A.,
red.; AREF'YEV, T.I., red.; USHAKOV, A.F., red.; MAKSIMOVICH,
A.Ye., red.; SIDOROV, A.A., red.; DANIKOVA, M.G., red.;
SERDYUK, B.M., red.; LAPCHENKO, K.P., tekhn. red.

[Basic conclusions of research work in 1959-1960]Osnovnye vy-
vody nauchno-issledovatel'skikh rabot za 1959-1960 gg. Kiev,
Izd-vo UASKhN, 1962.   308 p.   (MIRA 16:4)

1. Kiev. Vsesoyuznyy nauchno-issledovatel'skiy institut sa-
kharnoy promyshlennosti. 2. Deystvitel'nyy chlen Vsesoyuznoy
akademii sel'skokhozyaystvennykh nauk im.V.I.Lenina (for
Buzanova).
                 (Sugar beets--Research)

SHEVCHENKO, V.N., inzhener; GORELIK, M.G., inzhener.

Transporting asbestos slate slabs on trays with hinged stirrups. Rats.i
isobr. predl. v stroi. no.117:11-12   '55.   (MLRA 9:7)
                    (Conveying machinery)

SHEVCHENKO, V.N.

Problem of optimal calendar planning with limitation of the number of workers. Izv.vys.ucheb.zav.; radiofiz. 8 no.3:635-637 '65.

(MIRA 18:8)

1. Nauchno-issledovatel'skiy fiziko-tekhnicheskiy institut pri Gor'kovskom universitete.

SHEVCHENKO, V.N., inzh.

Hoisting of the drum of the TP-80 boiler using a gantry crane
with pulley blocks. Elek. sta. 34 no.10:77-78 O '63.
(MIRA 16:12)

SHEVCHENKO, V.N.

Method and equipment for studying the dispersiveness of an
atomized liquid in mine workings. Sbor. trud. Inst. gor. dela
AN UKR R no.13:124-127 '63   (MIRA 17:7)

GLEBSKIY, Yu.V. (Gor'kiy); SHEVCHENKO, V.N. (Gor'kiy)

Preparation of an optimum work schedule. Probl. kib. no.10:275-279
'63. (MIRA 18:4)

ZHITKEVICH, Ye.N., starshiy nauchnyy sotrudnik; PETRUKHA, Ye.I., kand.
biolog.nauk; POZHAR, Z.A., kand.sel'skokhoz.nauk; SHEVCHENKO,
V.M., kand.sel'skokhoz.nauk; BUTOVSKIY, A.P., starshiy nauchnyy
sotrudnik, spetsialist entomolog i fitopatolog; GROMAKOV, P.M.,
starshiy nauchnyy sotrudnik, spetsialist entomolog i fitopatolog
[deceased]; MARKOV, F.I., kand.biolog.nauk, spetsialist entomolog
i fitopatolog; PUCHKOV, V.G., kand.biolog.nauk, spetsialist entomolog
i fitopatolog; PALIY, V.F., doktor biolog.nauk, spetsialist entomolog
i fitopatolog; POLEVOY, V.V., starshiy nauchnyy sotrudnik, spetsialist
entomolog i fitopatolog; SHMELEVA, V.A., kand.biolog.nauk, spetsia-
list entomolog i fitopatolog; ZVEREZOMB-ZUBOVSKIY, Ye.V., prof.,
doktor sel'skokhoz.nauk; KORAB, I.I., prof., doktor sel'skokhoz.nauk;
MOROCHKOVSKIY, S.F., prof., doktor biolog.nauk; MURAV'YEV, V.P., prof.;
SALUNSKAYA, N.I., kand.biolog.nauk; SAVCHENKO, Ye.N., red.; ZUBAREV,
A.S., khudozh.-tekhn.red.

[Sugar beet growing] Sveklovodstvo. Izd.2., perer. i dop. Kiev,
Gos.izd-vo sel'khoz.lit-ry.USSR. Vol.3. Pt.1. [Sugar beet pests
and their control] Vrediteli sakharnoi svekly i mery bor'by s nimi.
Pt.2. [Sugar beet diseases and their control] Bolezni sakharnoi
svekly i mery bor'by s nimi. 1959. 642 p.   (MIRA 12:11)
                                (Continued on next card)

ZHITKEVICH, Ye.N.---(continued) Card 2.
        1. Kiyev. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy
svekly. 2. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy
svekly (for Zhitkevich, Petrukha, Pozhar, Shevchenko). 3. Uladovo-
Lyulinetskaya opytno-selektsionnaya stantsiya Vsesoyuznogo nauchno-
issledovatel'skogo instituta sakharnoy svekly (for Butovskiy). 4. Iva-
novskaya opytno-selekts.stantsiya Vsesoyuznogo nauchno-issledov.insti-
tuta sakharnoy svekly (for Gromakov). 5. Kurgizskaya opytno-selekts.
stantsiya Vsesoyuznogo nauchno-issledov.instituta sakharnoy svekly (for
Markov, Polevoy).6. Veselopodolyanskaya opytno-sel..stantsiya Vsesoyuz-
nogo nauchno-issledov.instituta sakharnoy svekly (for Puchkov). 7. Ra-
monskaya opytno-selekts.stantsiya Vsesoyuzn.nauchno-issledov.instituta
sakharnoy svekly (for Paliy). 8. Pervomayskaya opytno-selekts.stantsi-
ya Vsesoyuznogo nauchno-issledov.instituta sakharnoy svekly (for Shme-
leva). 9. Chleny-korresp. AN USSR (for Zverezomb-Zubovskiy, Murav'yev).
              (Sugar beets--Diseases and pests)

VEKSLER, I.G.; SHEVCHENKO, V.N.

Effect of homotransplantation of bone marrow on the toxicity
and antineoplastic activity of some alkylating drugs. Vop.
onk. 11 no.7:71-76 '65.   (MIRA 18:9)

1. Iz laboratorii patogeneza i patogeneticheskoy terapii opukholey
(rukovoditel'- kand. med. nauk K.P. Balitskiy) Ukrainskogo nauchno-
issledovatel'skogo instituta eksperimental'noy i klinicheskoy
onkologii (dir.- akademik AN UkrSSR, R.Ye. Kavetskiy).

COUNTRY   : USSR   O
CATEGORY   : Plant Diseases. Diseases of Cultivated Plants.

ABS. JOUR.   : RZBiol., No.12,   1958, No.53990

AUTHOR   : Shevchenko, V.N.
INST.   : Kharkov Univ.
TITLE   : Changes in Cereals Rust Resistance and the
               Tasks of Breeding

ORIG. PUB.   : V sb.: Vopr. metodikik selektsii pshenitsy
               i kukuruzy. Khar'kov Un-t, 1957, 99-105
ABSTRACT   : Investigations made by the All-Union Scienti-
               fic Research Institute for Sugar Beets have
               shown that new resistant winter wheat vari-
               eties relatively rapidly lose their resis-
               tance to rust (in 5-8 years), while new oat
               varieties retain their resistance for a long
               time. The agent of crown rust in oats is
               characterized by its yearly completion of the
               sexual process, thus eliminating the possibil-
               ity of isolated constant physiological races

CARD: 1/3

6

CATEGORY   : Plant Diseases. Diseases of Cultivated
               Plants.
ABS. JOUR.   : RZBiol., No. 12, 1958, No. 53990

AUTHOR   :
INST.   :
TITLE   :

ORIG. PUB.   :

ABSTRACT   : forming. The sexual process is practically
               negligible in wheat leaf rust; in vegetative
               reproduction individual variations are con-
               verted to diversities in race. The loss of
               resistance in wheat can be explained by
               races of parasite arising which are specific
               to the given variety. It is recommended
               that steps be taken to increase the number
               of resistant wheat varieties, while periods
               for utilizing these in production are pro-

CARD: 2/3

7

SHEVCHENKO, V.N., inzhener.

Loading blocks weighing up to 30 tons with a gantry crane with a 20-ton load capacity. Elek.sta. 27 no.5:52-53 My '56. (MLRA 9:8)
(Cranes, derricks, etc.) (Loading and unloading)

PERESYPKIN, V.F.; SALUNSKAYA, N.I.; SHEVCHENKO, V.N.

Development of mycology and phytopathology in the Ukrainian S.S.R.
Trudy VIZR no.23:217-225 '64.   (MIRA 19:2)

SHEVCHENKO, V. P.

"Water Drainage From the Roofs of Buildings During the Winter Time." Cand Tech Sci, Moscow Order of Labor Red Banner Construction Engineering Inst imeni V. V. Kuybyshev, Min Higher Education USSR, Moscow, 1955. (KL, No 17, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

ZASTANCHENKO, M.A.; SHEVCHENKO, V.P.

      Planing machine with hard-alloy tipped knives. Der. prom.
5 no.10:22 0 '56.   (MLRA 9:11)

               (Planing machines)

SHEVCHENKO, V.P., kand.tekhn.nauk

Heat protecting properties of brick walls under conditions pre-
vailing in Kharkov. Trudy Khar.inzh.-stroi.inst. no.14:3-7 '60.
(MIRA 15:7)

(Kharkov--Walls--Thermal properties)   (Sand-lime products)

SHEVCHENKO, V.P.

Creative work performed by the workers of the Krasnyi Liman railroad
district. Avtom.,telem. i sviaz' 5 no.11:22-24 N '61.

(MIRA 14:11)

1. Nachal'nik Krasnolimanskoy distantsii signalizatsii i svyazi
Donetskoy dorogi.
(Railroads--Signaling) (Railroads--Electronic equipment)

SHEVCHENKO, V.P., inzh.; SAPIRO, L.S., inzh.; GLUSHCHENKO, A.S., inzh.

Pack cutting with low-pressure oxygen. Svar.proizv. no.4:38
Ap '62.   (MIRA 15:3)

1. Donetskiy mashinostroitel'nyy zavod imeni 15-letiya Leninskogo
kommunisticheskogo soyuza molodezhi Ukrainy.
                        (Gas welding and cutting)

BORT, Mikhail Mikhaylovich, kand. tekhn. nauk; SHEVCHENKO, Viktor
    Prokov'yevich, inzh.; GLUSHCHENKO, Andrey Semenovich;
    VASILENKO, V.P., red.; TIMOSHEVSKAYA, A.A., tekhn. red.

    [Metal cutting with oxygen at low pressure]Rezka metalla kis-
    lorodom nizkogo davleniia. Donetsk, Donetskoe knizhnoe izd-vo,
    1961. 29 p.   (MIRA 15:9)
                    (Gas welding and cutting)

DUNDICH, Yevgeniy Ivanovich; KONSTANTINOV, Vsevolod Fedorovich; REUSOVA,
Valeriya Alekseyevna; SHEVCHENKO, V.P., kand. tekhn. nauk, dots.,
otv. red.; KOVALEVA, Z.G., red.; TROFIMENKO, A.S., tekhn.red.

[Laboratory manual on the structural physics of exterior elements
of buildings]Laboratornyi praktikum po stroitel'noi fizike og-
razhdaiushchikh konstruktsii zdanii. Khar'kov, Izd-vo Khar'kov-
skogo univ., 1962. 192 p.   (MIRA 16:2)
                    (Building research)

TRENIN, S.I.; CHEKHOV, V.N.; SHEVLYAKOV, Yu.A.; SHEVCHENKO, V.P. (Dnepropetrovsk)

"General solution of the equations of shallow shells and some estimates of the bending theory"

Report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow 29 Jan - 5 Feb 64.

BERZON, V.O.; SHAPARAYEV, A.V.; SHEVCHENKO, V.P.

Introducing new methods for the preparation of a blast-
furnace charge. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.
nauch. i tekh.inform. 17 no. 5:3-6 My '64.

(MIRA 17:6)

GRIN', Igor' Mikhaylovich; ILIK, Mark Il'ich; POBEREZKIN,
     Yefim Anatol'yevich; SKVORTSOV, Nikolay Alekseyevich;
     SHEVCHENKO, V.P., dots., otv. red.

     [Use of plastics in structural engineering] Stroitel'-
     nye konstruktsii s primeneniem plasticheskikh mass. [By]
     I.M.Grin i dr. Khar'kov, Izd-vo Khar'kovskogo univ.,
     1964. 181 p.   (MIRA 18:1)

BERZON, V.O.; SHARAPAYEV, A.V.; SHEVCHENKO, V.P.

Production of fluxed pellets. Biul. tekh.- ekon. inform. Gos.
nauch.-issl. inst. nauch. i tekh. inform. 17 no.3:3-5 '64.
(MIRA 17:9)

VYAZOV, Oleg Yevgen'yevich, doktor med. nauk; SHEVCHENKO, Vadim
    Pavlovich; LAGUTINA, Ye.V., red.

    [Organism of the mother and the development of the child]
    Organizm materi i razvitie rebenka. Moskva, Izd-vo
    "Znanie," 1965. 30 p. (Narodnyi universitet: Fakul'tet
    zdorov'ia, no.3)   (MIRA 18:1)

L 10440-65   EWT(d)/EWT(m)/EWA(d)/EWP(w)/EWP(k)/EWA(h)   Pf-4/Peb   ASD(f)-2
EM
ACCESSION NR: AP4043300   S/0198/64/010/004/0382/0391

AUTHOR: Shevlyakov, Yu. A. (Dnipropetrovsk); Shevchenko, V. P. (Dni-
propetrovsk)

TITLE: Solution of the problem of the flexure of shallow spherical
shells

SOURCE: Pry*kladna mekhanika, v. 10, no. 4, 1964, 382-391

TOPIC TAGS: spherical shell, shallow shell, shell flexure

ABSTRACT: A particular solution of differential equations for the
flexure of a shallow spherical shell under the action of concentrated
forces and bending moments was found by the method of Fourier-Hankel
integral transformations. The axially symmetric deformation of the
shell was studied. The application of the superposition method made
it possible to obtain particular solutions for circular and annular
loading. Nonaxisymmetric loading by a concentrated force at an arbi-
trary point and by a concentrated moment was also studied. A partic-
ular solution for more complex asymmetric loading can be obtained
from the solution for a corresponding symmetric load and by using the

Card 1/2

L 10440-65

ACCESSION NR: AP4043300

translation of coordinates. The variation of deflection and force parameters for the case when the concentrated force and bending moment act on the apex of the shell is shown in diagrams. Orig. art. has: 38 formulas and 2 figures.

ASSOCIATION: Dnipropetrovs'ky'y derzhavny'y universy'tet (Dnepropetrovsk State University)

SUBMITTED: 13Apr63   ATD PRESS: 3110   ENCL: 00

SUB CODE: AS, MA   NO REF SOV: 008   OTHER: 000

Card 2/2

SHEVLYAKOV, Yu.A. (Dnepropetrovsk); SHEVCHENKO, V.P. (Dnepropetrovsk)

Shallow spherical shell under the action of concentrated forces and moments. Prikl. mekh. 1 no.2:74-77 '65.

(MIRA 18:6)

1. Dnepropetrovskiy gosudarstvennyy universitet.

AUTHOR: Derkach, P. Kh. (Dnepropetrovsk); Shevchenko, V. P. (Dnepro-
pretrovsk)

TITLE: Load carrying capacity of a shallow spherical shell

SOURCE: Inzhenernyy zhurnal, v. 5, no. 1, 1965, 189-192

TOPIC TAGS: spherical shell, shallow spherical shell, spherical
shell capacity, shell strength, circular plate capacity, circular
plate strength, limit equilibrium

ABSTRACT: The limit equilibrium of a shallow spherical shell simply
supported at the edge and subject to a uniform continuous normal
pressure is discussed. The loading and support are axisymmetric.
The shell material is rigid plastic, obeying the Tresca yield condi-
tion and associated flow. Equilibrium equations of the shell are
used in determining, by means of the limit-equilibrium theory, the
stress and displacement distribution in the shell and its load carry-
ing capacity at the yield point. The capacity of a circular plate is
determined as a particular case. The results of calculations made by

Card 1/2

L 27851-65
ACCESSION NR: AP5006170

using the formulas derived are compared with experimental data in a
diagram. Orig. art. has: 2 figures and 25 formulas.   [VK]

ASSOCIATION: none

SUBMITTED: 11Apr63   ENCL: 00   SUB CODE: AS

NC REF SOV: 002   OTHER: 001   ATD PRESS: 3193

L 14940-66   EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(k)/EWA(h)/ETC(m)-6   IJP(c)   WW/EM
ACC NR: AP5019412   SOURCE CODE: UR/0021/65/000/007/0864/0867

AUTHOR: Shevchenko, V. P.

ORG: Dnepropetrovsk State University (Dnipropetrovs'kyy derzhavnyy universytet)

TITLE: The action of concentrated tangential forces on a shallow cylindrical shell

SOURCE: AN UkrRSR. Dopovidi, no. 7, 1965, 864-867

TOPIC TAGS: shell theory, Fourier transform, elasticity theory, INTERNAL STRESS

ABSTRACT: A partial solution is found for the equilibrium equation of a shallow cy-
lindrical shell. Equations for the displacement components and components of the
internal stress are derived. A Fourier transformation is applied to obtain ex-
pressions from which may be found asymptotic formulas for the displacements and the
internal forces around the point at which a concentrated force is applied. Orig.
arg. has: 7 equations.

SUB CODE: 20/   SUBM DATE: 04Jun64/   ORIG REF: 004/   OTH REF: 001

Card 1/1

SHEVCHENKO, V.R.

Method of interpreting longitudinal hodographs of reflected waves.
Razved.i prom.geofiz. no.44:37-42 '62.   (MIRA 15:7)
              (Seismic prospecting)

SHEVCHENKO, V.R.

Calculation of velocity discontinuity from hodographs of reflected
waves. Geofiz. sbor. no.4:101-108 '63.   (MIRA 16:9)

1. Poltavskaya geofizicheskaya ekspeditsiya.

SHEVCHENKO, V.R.

Using the results of seismic prospecting for paleotectonic concepts.
Geol. nefti i gaza 7 no.8:55-58 Ag '63.   (MIRA 16:10)

1. Poltavskaya geofizicheskaya ekspeditsiya.

SHEVCHENKO, V.S.

        Vibration driving of piles and sheet-piles. Osn.fund.i mekh.
        grun. no.6:15-16 '59.   (MIRA 13:4)
          (Piling (Civil engineering)) (Vibrators)

8(5)
AUTHOR: Shevchenko, V. S., Engineer (Moscow)   SOV/105-59-7-5/30

TITLE: Electromechanical Resonance in an Inert Jolting Machine
                 (Elektromekhanicheskiy rezonans v inertsionnoy vibromashine)

PERIODICAL: Elektrichestvo, 1959, Nr 7, pp 22 - 25 (USSR)

ABSTRACT: In several papers (Refs 1,2) electromechanical resonance is
                 described. The following case is investigated: When an inert
                 jolter driven by an asynchronous motor is placed upon an elastic
                 base, it is not able, in some cases, to attain its normal speed,
                 and works with a frequency that is characteristic of the elastic
                 system concerned. It is shown that this phenomenon is due to the
                 sudden increase of the load moment on the motor shaft as a result
                 of the resonance in the system consisting of the jolter and the
                 elastic base. For the stable operation of the jolter it is necessary
                 that at the respective rotational speed of the excenter, the
                 average value (during one period) of the static load moment is
                 equal to the moment of rotation of the motor. It is further shown
                 that the jolting motor may be selected for starting and overcoming
                 the resonance load peak by jointly constructing the diagram for the
                 average value of the static load moment together with that for the
Card 1/2   moment of rotation of the motor as functions of the angular

Electromechanical Resonance in an Inert Jolting Machine   SOV/105-59-7-5/30

velocity of the excenter. That combination is chosen in the case of which the point of intersection of the two curves is within the range of the working-speeds of the motor. Selection of the jolting motor for stable work at a frequency of vibro-oscillations that is lower than the resonance frequency of the system may be carried out analytically according to the formulas (10) to (15). There are 4 figures and 2 Soviet references.

SUBMITTED: December 24, 1958

Card 2/2

SHEVCHENKO, V.S., inzh.

Selecting engines for inertia vibrators. Stroi. i dor. mashinostr.
5 no.5:18-20 My '60.   (MIRA 14:4)
                              (Vibrators)

SHEVCHENKO, Vasiliy Stepanovich; SVETLOVA, Anna Nikolayevna; LOPATIN, G.S.,
prof., doktor ekonom. nauk, red.; YEPIFANOV, M.P., red.; ROMANOVA,
N.I., tekhn. red.

[Forereign trade correspondence and documentation; textbook] Vneshne-
torgovaia korrespondentsiia i dokumentatsiia; uchebnoe posobie. Pod
red. G.S.Lopatina. Moskva, Izd-vo IMO, 1961. 203 p. (MIRA 14:12)
                    (Russia—Commerce)

SHEVCHENKO, Vsevolod Sil'vestrovich, inzh.

Concerning the construction of load diagrams for the electric drives
of inertial vibrators. Izv.vys.ucheb.zav.; elektromekh. 5 no.3:
315-320 '62.   (MIRA 15:4)

1. Voyenno-inzhenernaya akademiya.
        (Vibrators--Electric driving)

SHEVCHENKO, V.S., kand.tekhn.nauk

Operating systems of inertial vibrating machines with springs.
Stroi. i dor. mash. 7 no.9:29-30 S '62.   (MIRA 15:10)
                (Vibrators)

GORANSKIY, G.K.; SHEVCHENKO, V.S.

Determining optimum structural parameters for the pumping units
of gear pumps (engines) using the methods of linear programming.
Nauka - proizv. no.1:80-89 '63.   (MIRA 18:3)

SHEVCHENKO, V.S.

Photometric method of processing star tracks. Izv. AN Uz.SSR.Ser.
fiz.-mat.nauk 8 no.4:73-77 '64. (MIRA 18:3)

1. Tashkentskaya astronomicheskaya observatoriya AN UzSSR.

BARANNIKOV, Mikhail Andreyevich; SHEVCHENKO, V.S., inzh.,
    retsenzent; SAAK'YAN, Yu.A., red.

[Welding of plastics] Svarka plastmass. Rostov-na-Donu,
Rostovskoe knizhnoe izd-vo, 1964. 166 p. (MIRA 18:4)

PETROV, Viktor Nikolayevich; SHEVCHENKO, Vladimir Trofimovich; GAMBURTSEVA,
L.V., inzh., red.; BOBROVA, Ye.N., tekhn.red.

[Operation and repair of ER1 electric trains] Opyt ekspluatatsii
i remonta elektropoezdov ER1. Moskva, Vses.izdatel'sko-poligr.ob"-
yedinenie M-va putei soobshcheniia, 1960. 60 p.   (MIRA 13:9)
                    (Electric railroads)

SHEVCHENKO, V.T., mashinist

Recommendation to engineers of electric units.   Elek.i tepl.
tiaga. 4 no.6:36-37 Je '60.   (MIRA 13:8)

1. Moskovskoye lokomotivnoye depo Oktyabr'skoy dorogi.
             (Electric railroads--Signaling)

SHEVCHENKO, V.T., Cand Agr Sci — (diss) "Improving spring
wheat *lutescence* 62 considering the free interbreeding
and various living conditions of the pollinators."

Khar'kov, 1959, 20 pp (Min of Agr UkSSR. Khar'kov Order of Labor

Red Banner Agr Inst im V.V. Dokuchayev) 150 copies

(KL, 33-59, 120)

- 50 -

SHEVCHENKO, V.V.

Cooperative utilization of equipment. Zhel.dor. transp. 42
no.4:35-38 Ap '60.   (MIRA 13:7)

1. Sekretar' Luganskogo obkoma Kommunisticheskoy partii
Ukrainy.
        (Railroads—Joint use of facilities)
        (Donets Basin—Coal—Transportation)

SHEVCHENKO, V.V.

Distribution of chromosome breakage in Crepis capillaris as affected by maleic hydrazide. Genetika no. 6:86-93 D '65
(MIRA 19:1)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

SHEVCHENKO, V.V., inzh.

Investigating an asynchroneus machine as a thermal system.
Trudy MEI no.30:294-312 '58. (MIRA 12:5)

1.Moskevskiy erdena Lenina energeticheskiy institut, Kafedra
elektricheskege transperta.
          (Electric machinery—Thermal properties)

AFANAS'YEV, A.S.; SHEVCHENKO, V.V.

Electrical reduction of oxygen on iron. Ukr. khim. zhur. 24
no. 2:158-161 '58.

(MIRA 11:6)

1. Dnepropetrovskiy metallurgicheskiy institut, kafedra fizicheskoy
khimii.

(Oxygen)
(Reduction, Electrolytic)

SHEVCHENKO, V. V.: Master Tech Sci (diss) -- "The method of thermal parameters as applied to the heating of asynchronous electrical machinery". Moscow, 1959. 14 pp (Min Higher Educ USSR, Moscow Order of Lenin Power Engineering Inst), 150 copies (KL, No 17, 1959, 109)

SHEVCHENKO, V.V.

Elektroprivod i avtomatizatsiya proizvodstvennykh protsessov; trudy soveshchaniya
(Electric Drive and Automation in Industrial Systems; Transactions of the Con-
ference) Moscow, Gosenergoizdat, 1960. 470 p. 11,000 copies printed.

General Eds.: I.I. Petrov, A.A. Siretin, and M.G. Chilikin; Eds.: I.I. Bud, and
E.P. Mikryz; Tech. Eds.: E.P. Varonin, and G.Ye. Larionov.

PURPOSE: The collection of reports is intended for the scientific and technical
personnel of scientific research institutes, plants and schools of higher
education.

COVERAGE: The book is a collection of reports submitted by scientific workers at
plants, scientific institutes and schools of higher education at the third
Joint All-Union Conference on the Automation of Industrial Processes in Machine
building and Automation on the Automation of Industrial Processes in Machine
Complex SSSR (State Planning Commission USSR), the GNTK SSSR, the Gosudarstvenny
May 12-16, 1959. The Conference was called by the Academy of Sciences USSR, the
Machine Building and the National(?) Body Emiles SSSR Po avtomatizatsii and
imeni (USSR National Committee on Automatic Control) and prepared by the
and Technical Committee po avtomatike vorannomu elektroprivodu (Scientific
of Energetics), the VNIIEM, the IAT (Institute of Automation and Telemechanics)
only Institute mashinovedeniya AI SSSR (Commission on the Technology of Machine
Building of the Institute of Science of Machines of the Academy of Sciences USSR).
It was the purpose of the Editorial Board to arrange the reports in a way which
would serve a relatively systematic presentation of theoretical and practical
problems relating to electric drive and automatic controls of industrial mecha-
nisms used in the various branches of industry. Basic problems of automated elec-
tric machinery and means of automation. Considerable attention is paid to non-
contact automatic control systems, including systems with semiconductor devices
and magnetic amplifiers, and to computers intended both for the analysis and the
synthesis of linear and nonlinear, automatic regulation and control systems. Re-
ports already published in journals or official publications have been consider-
ably abbreviated; those which have appeared in volume V of III EP Transactions
or in the journal Elektrichestvo" are marked with an asterisk. No personalities
are mentioned. References accompany some of the papers.

PART I. GENERAL PROBLEMS CONCERNING THE THEORY AND
PRACTICE OF ELECTRIC DRIVE AND AUTOMATION OF CONTROL

SHEVCHENKO, V.V.

Nonuniform acoustic waveguides. Akust. zhur. 7 no.4:484-491
'61.   (MIRA 14:10)

1. Moskovskiy fiziko-tekhnicheskiy institut.
            (Wave guides)
            (Sound)

9,1300

S/194/62/000/008/063/100
D271/D308

AUTHORS: Shevchenko, V.V., Lebedeva, G.N., and
             Leshchanskiy, Yu.I.

TITLE: Field near the junction of two waveguides with diffe-
             rent cross-sections

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
             no. 8, 1962, 20, abstract 8Zh140 (Tr. Mosk. fiz.-tekhn.
             in-ta, 1962, no. 8, 77 - 93)

TEXT: A system of equations is given for an approximate calcula-
tion of the field near a junction of two waveguides with parallel
axes. Numerical solution is given for the field near a symmetrical
junction of two rectangular waveguides with different cross-sections
in the H-plane when H_{10} mode propagates through the junction. The
results are briefly analyzed and compared with experimental data.
[Abstracter's note: Complete translation.]

Card 1/1

9.1310

S/194/62/000/008/064/100
D271/D308

AUTHORS: Lebedeva, G.N., Shevchenko, V.V., and
Leshchanskiy, Yu.I.

TITLE: Field near the diaphragm in a regular waveguide

TEXT: A system of equations is derived for an approximate calcula-
tion of the field near a diaphragm in a regular waveguide. Numeri-
cal solution is obtained for the field near a symmetrical H-dia-
phragm in a rectangular waveguide during propagation of the H_{10}
mode. The results are briefly analyzed and compared with experimen-
tal data. [Abstracter's note: Complete translation.]

Card 1/1

40938

S/109/62/007/007/006/018
D266/D308

AUTHOR: Shevchenko, V. V.

TITLE: Waveguide with inhomogeneous wall impedance. Surface compensator

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 7, 1962, 1100-1105

TEXT: The purpose of the paper is to study the mode conversion phenomena in a uniform waveguide bounded by a non-uniform impedance wall. The uniform waveguide is treated first assuming inhomogeneous and anisotropic surface impedance. The electric and magnetic intensities at the wall are related by the following formulas:

$$E_s = w_1(s, z)H_z; \qquad E_z = - w_2(s, z)H_s \qquad (1)$$

where w_1 and w_2 are components of the surface impedance tensor,

Card 1/4

Waveguide with inhomogeneous ...   S/109/62/007/007/006/018
                                       D266/D308

z - axial coordinate, s - transverse coordinate of the surface.
Using B. Z. Katsenelenbaum's generalized transmission line theory
(teoriya neregulyarnykh volnovodov s medlenno menyayuschimisya pa-
rametrami (Theory of nonuniform waveguides with slowly varying pa-
rameters), Izd. AN SSSR, 1961) the coupling coefficient between
modes i and j (i ≠ j) is obtained as follows:

$$S^{ij} = \frac{1}{2ikh^i(h^i - h^j)} \oint_C (w_1'H_z^i H_z^j - w_2'H_s^i) \, ds \qquad (7a)$$

where $k = 2\pi/\lambda$, h^i, h^j - axial propagation coefficients of mode i
and j respectively, C - boundary of the cross-section, and the
dash denotes differentiation with respect to z. In the second part
of the paper the coupling coefficient is calculated when the sur-
—face impedance is inhomogeneous (no longer anisotropic) and either

Card 2/4

Waveguide with inhomogeneous ...   S/109/62/007/007/006/018
                                       D266/D308

the cross-section of the waveguide varies or the cross-section is
kept constant but the waveguide is curved. The mathematical condi-
tions are obtained when the coupling coefficient is zero, i.e. the
mode conversion due to one type of nonuniformity can be compensated
by varying the surface impedance. As an example the transition be-
tween two circular waveguides of unequal diameter is worked out for
an incident H_{01} mode. If ka is large (a - radius of the waveguide)
or $|w| \ll 1$ the following expression is obtained for the variation
for the surface impedance:

$$w = w(z_o) - ik\left[a(z) - a(z_o)\right] \tag{19}$$

This choice of the surface impedance happens to eliminate not only
one spurious mode but all of them for which the condition $h_{0m} \ll$ ka
is satisfied. The obtained linear variation of the surface impedance
is disadvantageous from the point of matching necessitating a fur-
Card 3/4

Waveguide with inhomogeneous ...

S/109/62/007/007/006/018
D266/D308

ther matching section. There is no possibility of using the above
method for suppressing the E_{11} mode in a bent circular waveguide
because an inhomogeneous surface impedance does not couple the sym-
metric E and H modes.

ASSOCIATION: Moskovskiy fiziko-tekhnicheskiy institut (Moscow Phy-
              sical and Technical Institute)

SUBMITTED: November 4, 1961

Card 4/4

AFANAS'YEV, A.S.; SHEVCHENKO, V.V.

Mechanism of the electroreduction of oxygen on oxidized
iron. Report No.2. Ukr.khim.zhur. 28 no.9:1061-1065
'62.

(MIRA 15:12)

1. Dnepropetrovskiy metallurgicheskiy institut.
                    (Iron oxides)
              (Reduction, Electrolytic)

SHEVCHENKO, V.V.

Propagation of a surface wave through the bend of a plane guiding
surface. Radiotekh. i elektron. 8 no.12:1988-1997 D '63.

(MIRA 16:12)

SHEVCHENKO, V.V.

Characteristic waves on a homogeneous plane impedance
surface. Akust. zhur. 9 no.2:215-221 '63.   (MIRA 16:4)

1. Moskovskiy fiziko-tekhnicheskiy institut.
(Wave guides)

NEKRASOV, O. A., kand. tekhn. nauk; SHEVCHENKO, V. V., kand tekhn nauk;
REKUS, G. G., kand. tekhn. nauk

Calculation of the heating of asynchronous machines using
a thermal parameter method. Izv vyz ucheb zav; energ 7
no. 1:40-46 Ja '64.   (MIRA 17:5)

1. Moskovskiy khimiko-tekhnologicheskiy institut. Predstavlena
kafedroy elektrotekhniki i elektroniki.

SHEVCHENKO, '.V., kand.tekhn.nauk; _____, L.l., inzh.

Static converter of electric power for the auxiliary needs of municipal electric rolling stock. Elektrotekhnika 36 no.1:16-17 Ja '65.
(MIRA 18:3)

ROZENFEL'D, V.Ye., doktor tekhn. nauk; SHEVCHENKO, V.V., kand. tekhn. nauk;
    MAYBOGA, V.A., kand. tekhn. nauk; DOLABERIDZE, G.P., inzh.

Increasing of the voltages of d.c. electrified railroads. Elektrichestvo
no.7:37-44   Jl '65.   (MIRA 18:7)

1. Moskovskiy energeticheskiy institut.

L 27675-66   EWA(h)/EWT(1)

ACC NR: AP6007636

SOURCE CODE: UR/0141/66/009/001/0110/0125

AUTHOR: Shevchenko, V. V.

ORG: Institute of Radio Engineering and Electronics, AN SSSR (Institut radiotekhniki i elektroniki AN SSSR)

TITLE: Electromagnetic waves in isotropic laminated plasma waveguide

SOURCE: IVUZ. Radiofizika, v. 9, no. 1, 1966, 110-125

TOPIC TAGS: electromagnetic wave, plasma, plasma generator, plasma waveguide

ABSTRACT: A single plasma layer acting as a waveguide was considered by T. Tamir et al. (Proc. IEEE, v. 51, 317, 1963). This article analyzes a general case of an isotropic plasma waveguide consisting of heterogeneous plasma layers; harmonic fields with type $e^{i\omega t}$ time-dependence and two-dimensional modes propagating along the z-axis whose field is independent of the x-coordinate are considered. The laminated waveguide has a mixed (discrete and continuous) wave spectrum; near-waveguide modes correspond to the discrete part of the spectrum while the radiation field corresponds to the continuous. By introducing a system of natural modes and treating the open waveguide as a closed one, the problem of excitation of the laminated-plasma waveguide is solved. Orig. art. has: 4 figures and 75 formulas.

SUB CODE: 09 / SUBM DATE: 12Jul65 / ORIG REF: 005 OTH REF: 001

Card 1/1